

REMARKS

Claims 1-10, 13-22 and 25 stand rejected as being anticipated by U.S. Patent No. 5,831,596 (hereinafter Marshall). Claims 11-12 and 23-24 would be allowable if rewritten in independent form. Reconsideration of the rejections and objections is solicited in view of the foregoing amendments and the following remarks.

Claims 11-12 and 23-24 have been rewritten in independent form as suggested by the Examiner and, therefore, these independent claims, as well as any dependent claims depending from such independent claims, are now in form ready for allowance.

Regarding any rejection under §102, it is noted that the test for anticipation is whether all the elements and operational relationships of the rejected claim are found within a single prior art reference. There must not be any differences between the claimed invention and the reference disclosure as viewed by a person of ordinary skill in the art. Absent from the reference, disclosure of any claim element and/or operational interrelationship negates anticipation under §102.

Claim 30 is directed to a sensor assembly for sensing angular position of an object. Claim 30 in part recites at least one magneto-sensing element having a first axis of rotation. Claim 30 further recites a cylindrical magnet having a second axis of rotation, wherein the respective axes of rotation of the magneto-sensing element and the cylindrical magnet are non-coincident and parallel with respect to one another and further wherein the cylindrical magnet comprises an eccentrically situated bore. A rotatable shaft is affixedly mounted in the eccentrically situated bore.

Marshall is directed a joystick controller that uses a magnetic position sensor and a resilient control arm with a sensor used to measure its flex. See Abstract of Marshall. The Office Action makes reference to the embodiments shown in FIGS. 17 and 19 of Marshall as basis for the rejections under §102.

Applicant notes that the embodiment of FIG. 17 would result in wobbling motion relative to the Hall effect device 292 when the shaft 288 is rotated. This wobbling motion would be analogous to the wobbling motion of a spinning top as rotation decays. Conversely, claim 30 sets forth that the respective axes of rotation of the magneto-sensing element and the cylindrical magnet are non-coincident but parallel (i.e., non-wobbling) with respect to one another. Applicant recognizes that the embodiment of FIG. 20 of Marshall should not result in a wobbling motion. However, Marshall does not teach or suggest a cylindrical magnet having an eccentrically situated bore, and does not teach or suggest a rotatable shaft affixedly mounted in the eccentrically situated bore. This is a significant distinction since Marshall requires a mechanical interface device for receiving the rotatable shaft 308 whereas the structural elements and/or operational relationships recited in claim 30 advantageously allow a direct mechanical coupling between the cylindrical magnet and the rotating shaft. See, for example, the sensor assembly configuration shown in FIG. 9 of applicant's drawings.

In view of the foregoing remarks, it is respectfully submitted that Marshall fails to anticipate claim 30 under the statutory standards of §102 or renders claim 30 otherwise unpatentable. Since each of the dependent claims from independent claim 30 includes the structural and/or operational relationships respectively recited in such independent claim, it is also respectfully submitted that Marshall also fails to anticipate or obviate each of such dependent claims.

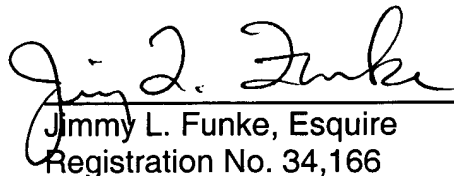
Marshall also fails to anticipate or obviate the structural and/or operational relationships recited in claim 38.

It is respectfully submitted that each of the claims pending in this application recites patentable subject matter and it is further submitted that such claims comply with all statutory requirements and thus each of such claims should be allowed.

The applicant appreciates the Examiner's efforts for conducting a thorough examination, and cordially invites the Examiner to call the undersigned attorney if there are any outstanding items that may be resolved via telephone conference.

You are hereby authorized to charge the fees necessary for adding the additional claims and for the one month extension of time to Delphi Technologies, Inc. Deposit Account No. 50-0831.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Jimmy L. Funke", is written over a horizontal line.

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I hereby certify that a true and correct copy of the above Amendment was furnished by First Class Mail to the Commissioner of Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450 on this 22 day of October, 2004.


Brenda D. Chambers